

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application. Please amend the claims as indicated below without prejudice.

Please cancel claims 1-27 without prejudice.

1-27. (Canceled without prejudice).

Please add the following new claims as follows:

28. (New) A chimeric Edg receptor selected from the group consisting of Edg 1/3(ct), Edg 1/3(i3ct), Edg 1/3(i2i3ct), Edg 5/3(i3ct) and Edg 8/4(ct) comprising a portion of a first Edg receptor and a portion of a second Edg receptor, wherein the chimeric Edg receptor comprises:

- (a) a non-contiguous replacement of at least one intracellular domain strand of a first Edg receptor;
- (b) with a corresponding strand from a second Edg receptor.

29. (New) A nucleic acid encoding the chimeric Edg receptor of Claim 28.

30. (New) A cell comprising the chimeric Edg receptor of Claim 28.

31. (New) A cell comprising the nucleic acid of Claim 29.

32. (New) A method of screening for compounds that bind an Edg receptor comprising:

- a) contacting the chimeric Edg receptor of claim 28 with a compound; and
- b) detecting binding of the compound to the chimeric Edg receptor thereby identifying a compound that binds the first Edg receptor.

33. (New) A method of screening for compounds that modulate the activity of an Edg receptor comprising:

- a) contacting the chimeric Edg receptor of claim 28 with a

compound; and

- b) detecting modulation of the activity of the chimeric Edg receptor relative to the activity of the chimeric Edg receptor in the absence of the compound thereby identifying a compound that modulates the activity of the chimeric Edg receptor.

34. (New) The method of claim 33, wherein the activity of the chimeric Edg receptor is increased.

35. (New) The method of claim 33, wherein the activity of the chimeric Edg receptor is decreased.

36. (New) The method of claim 33, wherein the activity of the chimeric G protein coupled receptor is detected by a calcium mobilization assay.

37. (New) The chimeric Edg receptor of claim 28, which couples with a Gαq protein comprising:

- a) an extracellular domain of a first Edg receptor, wherein the first Edg receptor does not couple with a Gαq protein;
- b) a transmembrane domain of the first Edg receptor, wherein the transmembrane domain is operably linked to the extracellular domain; and
- c) a chimeric intracellular domain comprising an intracellular strand of a second Edg receptor, wherein the intracellular strand of the second Edg receptor couples with a Gαq protein, and the chimeric intracellular domain is operably linked to the transmembrane domain.

38. (New) A chimeric Edg receptor comprising:

- a) an extracellular domain of a first Edg receptor;
- b) a transmembrane domain of the first Edg receptor, wherein the transmembrane domain is operably linked to the extracellular domain;

and

- c) a chimeric intracellular domain comprising a third intracellular loop and a carboxy terminal strand of a second Edg receptor, wherein the chimeric intracellular domain is operably linked to the transmembrane

domain.

39. (New) The chimeric Edg receptor of claim 38, wherein the first Edg receptor is selected from the group consisting of Edg 1, Edg 5, Edg 6 and Edg 8.

40. (New) The chimeric Edg receptor of claim 38, wherein the second Edg receptor is selected from the group consisting of Edg 2, Edg 3, Edg 4 and Edg 7.

41. (New) A method of screening for compounds that bind an Edg receptor comprising:

- a) contacting the chimeric Edg receptor of claim 37, 38, 39 or 40 with a compound; and
- b) detecting binding of the compound to the chimeric Edg receptor thereby identifying a compound that binds the first Edg receptor.

42. (New) A method of screening for compounds that modulate the activity of an Edg receptor comprising:

- a) contacting the chimeric Edg receptor of claim 37, 38, 39 or 40 with a compound; and
- b) detecting modulation of the activity of the chimeric Edg receptor relative to the activity of the chimeric Edg receptor in the absence of the compound thereby identifying a compound that modulates the activity of the chimeric Edg receptor.

43. (New) The chimeric Edg receptor of claim 28, wherein second intracellular loop and the third intracellular loop of the first Edg receptor are replaced with the corresponding strands of the second Edg receptor.

44. (New) The chimeric Edg receptor of claim 28, wherein the second intracellular loop, the third intracellular loop, and the carboxy terminal strand of the first Edg receptor are replaced with the corresponding strands of the second Edg receptor.